

# Safety Bulletin



Floods and Protection  
SB04-007



Nobody can stop a flood. But if you are faced with one, there are actions you can take to protect your family and keep your property losses to a minimum. The American Red Cross and FEMA have jointly published excellent brochures entitled "Your Family Disaster Plan" and "Your Family Disaster Supplies Kit." Every family should obtain these and follow them. They cover more than just floods and will also be useful for other potential disasters. Knowing what to do to protect yourself and your family is your best protection and your responsibility. Below you will find actions to take before, during and after a flood.

## **Before a flood:**

What is your flood risk? Your community officials or local emergency management office are your best resources to learn about the history of flooding for your region. Ask whether your property is in the floodplain and if it is above or below the flood stage water level. Find out what could happen to you and your family. Where will your family be when it floods? They could be anywhere - at work, at school, or in the car. How will you find each other? Will you know if your children or parents are safe? Find out about the disaster plans at your workplace, your children's school or daycare, and other places where your family spends time.

Have disaster supplies on hand.

- Flashlights and extra batteries
- Portable, battery-operated radio and extra batteries tuned to a local station, and follow emergency instructions.
- First aid kit and manual
- Emergency food and bottled water
- Non-electric can opener
- Essential medicines
- Cash and credit cards
- Sturdy shoes

If you live in a frequently flooded area, take preventative measures and stockpile emergency building materials:

- Plywood, plastic sheeting, lumber, nails, hammer and saw, pry bar, shovels, and sandbags.
- Have check valves installed in building sewer traps to prevent flood waters from backing up in sewer drains.
- As a last resort, use large corks or stoppers to plug showers, tubs, or basins.

Plan and practice an evacuation route.

- Learn flood-warning signs and your community's alert signals.
- Contact your local emergency management office or local American Red Cross chapter for a copy of the community flood evacuation plan.
- This plan should include information on the safest routes to shelters. Individuals living in flash flood areas should have several alternative routes.
- Request information on preparing for floods and flash floods from the Red Cross or FEMA.

Develop a family preparedness plan and emergency communication plan.

- In case family members are separated from one another during floods or flashfloods (a real possibility during the day when adults are at work and children are at school), have a plan for getting back together.

- Ask an out-of-state relative or friend to serve as the "family contact." After a disaster, it's often easier to call long distance. Make sure everyone in the family knows the name, address, and phone number of the contact person.

- Make sure that all family members know how to respond after a flood or flash flood.

- Teach all family members how and when to turn off gas, electricity, and water.
- Teach children how and when to call 9-1-1, police, fire department, and which radio station to tune to for emergency information.

- Discuss why you should prepare for a disaster.

- Who will take care of your pets? Most shelters will not allow pets.

- Keep flood insurance coverage current.

- Prepare and maintain a family emergency kit. Replace items, as necessary.

- Prepare and maintain an emergency kit for your car.

- Practice and maintain your plan with all family members.

- Pay attention to all National Weather Service flood watches and warnings.

- Be prepared to evacuate.

### **Flooding is imminent:**

- Put your family preparedness plan into action.
- Contact your family members and confirm plan of action and alternatives.
- Confirm your family emergency kit is complete and ready.
- Move emergency supply items and valuables to highest inside part of your residence.

- Locate and put pets in a safe place.

- Make sure you have an adequate water supply in case service is cutoff.

If you have time, and can do so safely:

- Move vehicles to higher ground.

- Turn off all utilities at the main power switch and close the main gas valve if evacuation appears necessary.

- Move valuables, such as papers, furs, jewelry, and clothing to upper floors or higher elevations.

- Fill bathtubs, sinks, and plastic soda bottles with clean water. Sanitize the sinks and tubs first by using bleach. Rinse and then fill with clean water.

- Bring outdoor possessions, such as lawn furniture, grills and trashcans inside, or tie them down securely.

- Your safest option is to stay put. However, if you must evacuate to a safe location or a shelter, take your emergency supply kit and tell your family check-in contact you're leaving.

- Don't drive through flooded streets.

**Once the flood arrives:**

- Don't drive through a flooded area. If you come upon a flooded road, turn around and go another way. A car can be carried away by just 2 feet of flood water.
- If your car stalls, abandon it immediately and climb to higher ground. Many deaths have resulted from attempts to move stalled vehicles.
- Don't walk through flooded areas. As little as six inches of moving water can knock you off your feet.
- Stay away from downed power lines and electrical wires. Electrocution is another major source of deaths in floods. Electric current passes easily through water.
- Look out for animals - especially snakes. Animals lose their homes in floods, too. They may seek shelter in yours.
- If the waters start to rise inside your house before you have evacuated, retreat to the second floor, the attic, and if necessary, the roof.
- Take dry clothing, a flashlight and a portable radio with you. Then, wait for help.
- Don't try to swim to safety; wait for rescuers to come to you.
- If outdoors, climb to high ground and stay there.
- If you did not get the electricity turned off before the water entered your residence, do not turn it off. Get out of the water.
- Move emergency supplies to highest inside part of your residence. If necessary, use the attic or roof. Wait for help.
- Don't try to swim or wade to safety. Wait for the water to recede or rescue. There are environmental and biological dangers in the water such as oil, gasoline, sewage, fire ants, etc. Downed power lines can electrify floodwaters. Don't let your kids play in the water.
- Stay calm and wait. Don't try to walk or drive through floodwaters. Most deaths occur from people walking or driving through floodwaters.

**After the flood:**

Flood dangers do not end when the water begins to recede. Listen to a radio or television and don't return home until authorities indicate it is safe to do so. Remember to help your neighbors who may require special assistance – infants, elderly people, and people with disabilities.

- If your home, apartment or business has suffered damage, call the insurance company or agent who handles your flood insurance policy right away to file a claim.
- Before entering a building, inspect foundations for cracks or other damage. Don't go in if there is any chance of the building collapsing.
- Upon entering the building, don't use matches, cigarette lighters or any other open flames, since gas may be trapped inside. Instead, use a flashlight to light your way.
- Keep power off until an electrician has inspected your system for safety.
- Floodwaters pick up sewage and chemicals from roads, farms and factories. If your home has been flooded, protect your family's health by cleaning up your house right away. Throw out foods and medicines that may have met floodwater.
- Until local authorities proclaim your water supply to be safe, boil water for drinking and food preparation vigorously for five minutes before using.

- Be careful walking around. After a flood, steps and floors are often slippery with mud and covered with debris, including nails and broken glass.
- Take steps to reduce your risk of future floods. Make sure to follow local building codes and ordinances when rebuilding, and use flood-resistant materials and techniques to protect yourself and your property from future flood damage.

### **Inspecting Utilities In A Damaged Home:**

- Check for gas leaks – If you smell gas or hear blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, a professional must turn it back on.
- Look for electrical system damage – If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician for advice.
- Check for sewage and water line damage – If you suspect sewage lines are damaged avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid the water from the tap. You can obtain safe water by melting ice cubes.

### **Facts:**

- The majority of flood-related deaths are caused by people attempting to drive through moving water. Ironically, many drivers rescued from floodwaters report that they were in a hurry to get home – to safety – as a reason for tempting the danger of driving into water. However it looks, and despite what car commercials depict, driving into floodwaters may be the most dangerous things one might ever try considering the following:
  - Most cars will float (and be swept away) in 18-24 inches of moving water.
  - Trucks and SUVs are not much better with only 6-12 more inches of clearance.
  - Once cars are swept downstream they will often roll to one side or perhaps flip over entirely. The driver has a few precious seconds to escape the vehicle. Many drivers panic as soon as the vehicle submerges and are found later with their seat belt intact.
  - Just an inch of water can cause costly damage to your property.
  - Flash floods often bring walls of water 10 to 20 feet high.
  - New land development can increase flood risk, especially if the construction changes natural runoff paths.
  - Floods, especially flash floods, kill more people each year than hurricanes, tornadoes, windstorms or lightning.
  - About 60% of all flood deaths are people in vehicles that moving water sweeps away.
  - If you drive into seemingly shallow water, you could land your car or truck in water two or three feet deep, which is enough to float a car away.
  - Water over a road, no matter how deep, can hide washed-out pavement. As little as six inches of moving water is enough to float a small car and carry it away.

- Flowing water can be deceptively strong, packing a significant punch no one expects.
- Fresh water moving at only 4 mph, a brisk walking pace, exerts a force of about 66 pounds on each square foot of anything it encounters; double the water speed to 8 mph and the force zooms to about 264 pounds per square foot. That's enough force to push a car or light truck off a flooded road if the water's up to door level. Imagine what it would do to a person!

After a natural disaster there will be confusion, concern, and emotional and physical stress. You need to look after yourself and your family as you focus on cleanup and repair. Being prepared and calm will help you and your family survive.